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PATENT APPLICATION  
10/019,719

1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Joachim Hohne et al.
Serial No.:	10/019,719
Date Filed:	April 29, 2002
Group Art Unit:	2193
Examiner:	Kang, Insun
Title:	<b>METHOD OF MONITORING OR INSTALLING NEW PROGRAM CODES IN AN INDUSTRIAL INSTALLATION</b>

**MAIL STOP – APPEAL BRIEF - PATENTS**  
COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

**APPEAL BRIEF**

Further to the notice of appeal submitted on March 19, 2007, Applicants hereby submit this appeal brief according to §41.37.

**APPELLANT'S BRIEF (37 C.F.R. § 41.37)**

This brief is submitted in support of appellants' notice of appeal from the decision dated February 27, 2007 of the Examiner finally rejecting claims 1 and 3-10 of the subject application.

**I. REAL PARTY IN INTEREST**

The real party in interest is:

Siemens AG  
Wittelsbacherplatz 2  
80333 München  
GERMANY

by virtue of an assignment by the inventors as duly recorded in the Assignment Branch of the U.S. Patent and Trademark Office.

**II. RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences.

**III. STATUS OF CLAIMS**

The application as originally filed contained a total of 7 claims, and claims 8-10 were added during prosecution. Claims 2, 11, 13, and 18 are independent. The status of the claims are as follows:

Claims Pending:	1 and 3-10
Claims Rejected:	1 and 3-10
Claims Allowed:	None
Claims Cancelled:	2
Claims Amended:	1, 3, 5, 6, and 7
Claims Withdrawn:	None
Claims Objected:	None

Appellants appeal the rejection of claims 1 and 3-10 of the present application. These claims are reproduced in Appendix A.

#### IV. STATUS OF AMENDMENTS

Applicants amended Claims 1, 3 and 7 and cancelled Claim 2 in a Response to Office Action filed on August 9, 2005. Claims 1, 3, 5, 6, and 7 were further amended and Claims 8-10 were added in a Response to Final Office Action filed January 13, 2006. No further claim amendments were submitted.

#### V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1 is directed to “*A method of installing a mobile program code for the control of an industrial automation system comprising a central computer and a plurality of actors and sensors coupled via a bus system with said central installation computer, “*

See, for example, page 2, paragraph [0003] and page 4, paragraph [0011]; Claim 1 further includes the limitation: “*the method comprising the steps of:*

*transmitting the mobile program code from a remote location to the central computer of the industrial automation system,”*

See, for example, page 6, paragraph [0012], lines 3-5; Claim 1 further includes the limitation: “*installing and commissioning the mobile program code independently on the industrial automation system, and “*

See, for example, page 6, paragraph [0012], lines 5-7; Claim 1 further includes the limitation:

*“generating by means of the mobile program code further mobile program codes having a defined task, and transmitting the further mobile program codes at least to said actors and sensors within the industrial automation system.”*

See, for example, page 6, paragraph [0012], lines 7-12.

#### VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

##### Objections under 37 CFR 1.83(a)

Examiner has objected to the drawings for not showing every feature of the invention specified in the Claims under 37 CFR 1.83(a). The Examiner particularly stated that the

Figure should be designated as “Prior Art” because Applicant allegedly stated that this figure is prior art. Applicant respectfully disagrees that such a statement has been made.

Rejections under 35 U.S.C. §103

Claims 1 and 3-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,529,780 issued to Guenter Soergel et al. (“Soergel”) in view of Lange et al., “Programming and Deploying Java Mobile Agents with Aglets,” dated August 1998 (“Lange”). Applicants respectfully traverse and submit the cited art combinations, even if proper, which Applicants do not concede, does not render the claimed embodiment of the invention obvious.

Claims 1 and 3-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,038,486 issued to Hiroyuki Saitoh et al. (“Saitoh”) in view of Lange. Applicants respectfully traverse and submit the cited art combinations, even if proper, which Applicants do not concede, does not render the claimed embodiment of the invention obvious.

**VII. ARGUMENT**

Arguments to Objections under 37 CFR 1.83(a)

During prosecution, Applicant merely stated that Fig. 1 shows an exemplary embodiment of a typical industrial automation system. From the context of this statement it is clear that this statement didn’t mean that Fig. 1 in its entirety shows the prior art. In the response to office action dated January 13, 2006, Applicant merely stated that all elements necessary to understand the invention are shown in the Figure. At no time, Applicant stated that the industrial automation system shown in the Figure is prior art. On the contrary, the figure shows an exemplary embodiment of the invention including an industrial automation system. Furthermore, and most importantly, arrow 50 designates the transfer of the mobile code which is part of the invention. Thus, Fig. 1 does not show the prior art. The Examiner’s

request to show the act of transferring software code in a figure is, thus, shown in the Figure as far as the act of “transferring” can be shown in a drawing. Applicant, therefore, considers the requirements of 37 CFR 1.83(a) fulfilled.

In the final office action dated November 28, 2006, the Examiner requested an explanation of the statement made in the response. As stated above, Applicant merely explained in the response dated January 13, 2006 and in the following response dated September 1, 2006 that all elements as claimed are shown in the Figure. The Figure is explained in detail in the specification, for example, in paragraph [0011]. Applicant did not contradict this detailed description in the last response. Thus, Applicant believes that no further explanation of the Figure is necessary.

Arguments to Rejections under 35 U.S.C. §103

According to the present independent claim 1, a mobile program code is transmitted from a remote location to the central computer of the industrial automation system. Then, this mobile code is installed and commissioned independently on the industrial automation system. By means of the mobile program code further mobile program codes is generated having a defined task, and the further mobile program codes are transmitted at least to the actors and sensors within the industrial automation system.

Thus, the present invention in particular generates additional mobile code within the central computer of the industrial automation system which is transferred to actors and sensors. Neither *Soergel* nor *Saitoh* disclose any type of sensor or actor let alone sensor or actors that are capable of receiving and processing code. The specification of the present application discloses that sensors and actors are coupled with the automation device, for example, via a bus system. *See*, page 5, lines 3-8. the specification further states that “Via the decentralized peripheral 11, various actuators and sensors 20, 21, 22 can be driven or evaluated via the automation device 6.” *See*, page 5, lines 9-11. Thus, these actors and sensors are specifically designed to have some “intelligence” to communicate with the automation device and, thereby being able to receive code. *Soergel* and *Saitoh* neither disclose nor mention such sensors or actors.

In the Advisory Action, dated February 27, 2007, the Examiner stated that *Soergel* and *Saitoh* inherently disclose sensors and actors. *See*, Advisory Action, continuation of 11. Even if this is the case, which Applicant does not concede, *Soergel* and *Saitoh* do not disclose sensors and actors that are capable of receiving a mobile code. *Soergel* and *Saitoh* are silent with respect to sensors and actors. According to *Soergel* mobile code is merely transmitted to a central computer. *Soergel* neither mentions nor suggests to generate new mobile code and transmit it to a sensor or actor. Similarly, *Saitoh* does not disclose anything beyond *Soergel*. Neither sensors nor actors capable of receiving a mobile code are disclosed. Thus, this limitation is neither disclosed nor suggested in *Soregel* or *Saitoh*.


The Examiner failed to present any type of evidence that shows actuators or sensors that are capable of receiving mobile code. Hence, the present independent claim 1 is not obvious in view of the cited prior art. Applicants respectfully submit that the dependent Claims are allowable at least to the extent of the independent Claim 1 to which they refer, respectively. Thus, Applicants respectfully request reconsideration and allowance of the dependent Claims. Applicants reserve the right to make further arguments regarding the Examiner's rejections under 35 U.S.C. §103(a), if necessary, and do not concede that the Examiner's proposed combinations are proper.

**SUMMARY**

Applicants believe that the prior art cited do not render the independent claims obvious. Applicants respectfully submit that the dependent Claims are allowable at least to the extent of the independent Claim to which they refer, respectively. Thus, Applicants respectfully request reconsideration and allowance of the dependent Claims.

Applicants hereby authorize the Commissioner to charge the \$500.00 filing fee, and any other fees necessary, or credit any overpayment, to Deposit Account No. 50-2148 of Baker Botts L.L.P.

Respectfully submitted,  
BAKER BOTTS L.L.P.  
Attorney for Applicants

  
Andreas Grubert  
Reg. No. 59,143

Date: 5/15/07

SEND CORRESPONDENCE TO:

BAKER BOTTS L.L.P.

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## VIII. CLAIMS APPENDIX

### Claims:

1. (Previously Presented) A method of installing a mobile program code for the control of an industrial automation system comprising a central computer and a plurality of actors and sensors coupled via a bus system with said central installation computer, the method comprising the steps of:

transmitting the mobile program code from a remote location to the central computer of the industrial automation system,

installing and commissioning the mobile program code independently on the industrial automation system, and

generating by means of the mobile program code further mobile program codes having a defined task, and transmitting the further mobile program codes at least to said actors and sensors within the industrial automation system.

2. (Cancelled)

3. (Previously Presented) A method according to claim 1, wherein the mobile program code is transmitted between the remote location and the industrial automation system via ISDN, satellite, or Internet.

4. (Original) The method according to claim 1, wherein the mobile program code is JAVA program code.

5. (Previously Presented) The method according to claim 4, further comprising running the mobile program code on hardware provided for an open-loop or closed-loop control of the industrial automation system.

6. (Previously Presented) The method according to claim 1, wherein the installed mobile program code is designed to monitor the industrial automation system.



7. (Previously Presented) The method according to claim 6, further comprising independently monitoring the industrial automation system by means of the mobile program code for a fault or special event, in the event of which information needed to evaluate the fault or the special event is transmitted to the remote location by means of the mobile program code.

8. (Previously Presented) The method according to claim 1, wherein the industrial automation system further comprises automation devices located between said central computer and said actors and sensors.

9. (Previously Presented) The method according to claim 1, wherein the industrial automation system further comprises an industrial Ethernet bus for coupling said automation devices and said central computer.

10. (Previously Presented) The method according to claim 1, wherein the industrial automation system further comprises a Profibus for coupling said automation devices and said actors and sensors.

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10

**IX. EVIDENCE APPENDIX**

**NONE**

**X. RELATED PROCEEDINGS APPENDIX A**

**NONE**